

THE RANUNCULUS HYDROCHAROIDES GROUP IN CALIFORNIA

LYMAN BENSON

Scattering specimens of *Ranunculus* belonging to the section *Flammula* of *Euranunculus* collected in the extreme northern end of California have been mentioned in botanical works as plants of uncertain classification. Examination of the material of the various Pacific Coast herbaria and of the United States National Herbarium has served to link these puzzling California plants with species occurring in restricted areas in Idaho and Oregon and with *Ranunculus hydrocharoides* of regions from Arizona southward. The three species of the *Hydrocharoides* group are distinguished from the typical *Flammula* group most readily by the fact that the cauline leaves are ovate or ovate-lanceolate rather than lanceolate, oblanceolate, or linear.

KEY TO THE SPECIES

Stems rooting at the nodes; flowers never in cymes.

Roots with no thickening at the base; stems distinctly fistulose, inflated, usually at least 4 mm. thick.....1. *R. hydrocharoides*.

Roots each with a light-colored, fusiform thickening at the base; stems filiform, 1 mm. thick.....2. *R. Gormanii*.

Stems never rooting; flowers usually in cymes; roots each with a small, light-colored, fusiform thickening at the base.....3. *R. Populago*.

1. *RANUNCULUS HYDROCHAROIDES* A. Gray, Mem. Am. Acad. II. 5: 306. 1854.—Owens Lake, California, according to A. Gray; southern Arizona; southwestern New Mexico; northwestern Mexico. Type collection: "In wet marshes, Mabibi, Sonora, June, 1854," *Thurber*.

2. *RANUNCULUS GORMANII* Greene, Pittonia 3: 91. 1896. (*Ranunculus reptans Gormanii* Davis, Minn. Bot. Studies 2: 498. 1900. *Ranunculus terrestris* Wynd, Torreya 30: 53. 1930.) Glabrous perennial; roots slender, each tapering outward from a small fusiform base; stems prostrate, stolon-like, 1-2 dm. long, rooting usually at 2 or 3 nodes, filiform; basal and cauline leaves alike, broadly ovate to deltoid-ovate, 20-30 mm. long, 15-22 mm. broad, entire, thin and flaccid, 3-nerved; peduncles terminal or nearly so; sepals spreading, ovate, 2-3 mm. long, glabrous; petals 5, bright straw yellow, 5 or 6 mm. long; achenes 6-15, 1.5 mm. long, glabrous, smooth, somewhat compressed, slightly margined, beak evident, curved at the tip; receptacle short, not enlarged in fruit.—Boggy mountain meadows, Hudsonian Zones: Cascade Mountains from the Three Sisters, Oregon, to the Siskiyou and Klamath mountains, California; 2,000 meters elevation. Type collection: "on moist banks at Cathedral Springs, Crater Lake, southern Oregon . . . *M. W. Gorman*." California specimens: Siskiyou Mountains, *Howell* in 1884; Marble Mountain, *Chandler* 1552.

3. *RANUNCULUS POPULAGO* Greene, Erythraea 3: 19. 1895. (*Ranunculus Cusickii* Jones, Proc. Calif. Acad. II. 5: 615. 1895.) Flaccid and glabrous perennial; roots fleshy, with a light-colored, fusiform thickening at the base; stems 1 or 2, reclining or suberect, 1-4 dm. long, growing rapidly during anthesis; basal leaves round-reniform to cordate-ovate or ovate, 3-5 cm. long by 3-6 cm. broad, denticulate, thin, petioles 5-15

cm. long; cauline leaves opposite, rarely alternate in specimens mostly from the southern part of the range, deltoid-ovate or ovate-lanceolate; peduncles 3-10 cm. long; flowers usually in true cymes; sepals spreading, rounded, 2.5-4 mm. long; petals 5, yellow, spatulate with a rounded apex, 8 mm. long; achenes in a hemispherical head 3-4 mm. in radius, obovate, 1.5 mm. long, glabrous, beak straight, one-third the length of the body; receptacle short, a little enlarged in fruit.—Mountain meadows, Canadian Zone: Idaho; Blue Mountains, Washington; mountains of Oregon; Siskiyou County, California, southward to the Sierra Nevada in Butte County. Type collection: "Mountains of Oregon." Eagle Creek, Wallowa Mountains, *Cusick* 1161. (cf. *Pittonia* 3: 14, 1896.) California specimens: Dead Horse Canyon, Siskiyou County, *M. S. Baker* in 1899; Colby, *Austin* 180; Jonesville, *Babbett* in 1923.

THE BOTANICAL EXPLORERS OF CALIFORNIA.—X.

WILLIS LINN JEPSON

Rachel Merritt Austin

A small group of naturalists lived in Plumas County in the northern Sierra Nevada of California during the sixties and seventies of the last century. One of these was Rachel M. Austin. Born in Cumberland County, Kentucky, on March 10th, 1832, Rachel Merritt Smith



RACHEL MERRITT AUSTIN

was reared in Platt County, Missouri, and went to a subscription school in the winter. Left an orphan at an early age, removal with her new parents to Illinois gave better opportunities and at sixteen she herself taught school in summer and with the means thus acquired attended the Granville Academy in the winter. At this academy perfectly marvelous subjects were open to the young and eager girl—subjects unheard of in the country school, namely Latin and the natural sciences, including Chemistry, Astronomy and Botany. Here in Illinois she met and married Dr. A. Leonard, a physician, and after his death and the financial crash in 1857 she went to Kansas and there wedded J. T. Austin. With him and

her children she came to California, arriving at the gold mines on Black Hawk Creek in Plumas County by means of sleds and snowshoes in 1865. Here the family remained for ten years and then moved to